

OIIPE

## RAW SEQUENCE LISTING

DATE: 11/23/2001

PATENT APPLICATION: US/09/896,888A

TIME: 10:49:59

Input Set : N:\Crif3\RULE60\09896888A.RAW

Output Set: N:\CRF3\11232001\I896888A.raw

ENTERED

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1 <110> APPLICANT: The University of British Columbia
2 <120> TITLE OF INVENTION: Insect Expression Vectors
3 <130> FILE REFERENCE: 80021-44
4 <140> CURRENT APPLICATION NUMBER: 09/896,888A
5 <141> CURRENT FILING DATE: 2001-06-29
6 <150> PRIOR APPLICATION NUMBER: US/09/048,911
7 <151> PRIOR FILING DATE: 1998-03-26
8 <150> PRIOR APPLICATION NUMBER: 60/049,946
9 <151> PRIOR FILING DATE: 1997-03-27
10 <160> NUMBER OF SEQ ID NOS: 50
11 <170> SOFTWARE: PatentIn Ver. 2.0
13 <210> SEQ ID NO: 1
14 <211> LENGTH: 564
15 <212> TYPE: DNA
16 <213> ORGANISM: Orgyia pseudotsugata
17 <400> SEQUENCE: 1
18      catgatgata aacaatgtat ggtgctaata ttgcttcaac aacaattctg ttgaactgtg 60
19      ttttcatggt tgccaacaag cacttttata ctcggtggcc tccccaccac caactttttt 120
20      gcaactgcaaa aaaacacgct tttgcacgcg ggccataca tagtacaac tctacgtttc 180
21      gtagactatt ttacataaat agtctacacc gttgtatacg ctccaaatac actaccacac 240
22      attgaacctt tttgcagtgc aaaaaagtac gtgtcggcag tcacgtaggc cggccttata 300
23      gggtcgcgtc ctgtcacgta cgaatcacat tatcggaccg gacgagtgtt gtcttatcgt 360
24      gacaggacgc cagcttcctg tgttgctaac cgcagccgga cgcaactcct tatcggaaca 420
25      ggacgcgcct ccatatcagc cgcgcgttat ctcatgcgcg tgaccggaca cgaggcgccc 480
26      gtcccgctta tcgcgcctat aaatacagcc cgcaacgata tggtaaacac agttgaacag 540
27      catctgttac agcgacacaa catg                                     564
29 <210> SEQ ID NO: 2
30 <211> LENGTH: 44
31 <212> TYPE: DNA
32 <213> ORGANISM: Orgyia pseudotsugata
33 <400> SEQUENCE: 2
34      ccgcggatcg atatctgact aaatcttagt ttgtattgtc atgt                                     44
36 <210> SEQ ID NO: 3
37 <211> LENGTH: 24
38 <212> TYPE: DNA
39 <213> ORGANISM: Orgyia pseudotsugata
40 <400> SEQUENCE: 3
41      cgggtgcgca cgcgcttgaa agga                                     24
43 <210> SEQ ID NO: 4
44 <211> LENGTH: 45
45 <212> TYPE: DNA
46 <213> ORGANISM: Artificial Sequence
47 <220> FEATURE:
48 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR amplifier
49 <400> SEQUENCE: 4
50      aatttaaacy ttggtaccct cgagctcagc tgaattctgg atcct                                     45
52 <210> SEQ ID NO: 5

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53 <211> LENGTH: 45
54 <212> TYPE: DNA
55 <213> ORGANISM: Artificial Sequence
56 <220> FEATURE:
57 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR amplifier
58 <400> SEQUENCE: 5
59      ctagaaggat ccagaattca gctgagctcg aggtaccaag cttta      45
61 <210> SEQ ID NO: 6
62 <211> LENGTH: 36
63 <212> TYPE: DNA
64 <213> ORGANISM: Artificial Sequence
65 <220> FEATURE:
66 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR amplifier
67 <400> SEQUENCE: 6
68      ctagaccggt catatgcggg ccgcggatcg atcgat      36
70 <210> SEQ ID NO: 7
71 <211> LENGTH: 30
72 <212> TYPE: DNA
73 <213> ORGANISM: Artificial Sequence
74 <220> FEATURE:
75 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR amplifier
76 <400> SEQUENCE: 7
77      atcgatcgat ccgcggccgc atatgaccgt      30
79 <210> SEQ ID NO: 8
80 <211> LENGTH: 25
81 <212> TYPE: DNA
82 <213> ORGANISM: Artificial Sequence
83 <220> FEATURE:
84 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
85 <400> SEQUENCE: 8
86      tcgggtgcgc acgcgcttga aagga      25
88 <210> SEQ ID NO: 9
89 <211> LENGTH: 55
90 <212> TYPE: DNA
91 <213> ORGANISM: Artificial Sequence
92 <220> FEATURE:
93 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
94 <400> SEQUENCE: 9
95      tcagctgcag atgaagaggc ctagacctat gaaaccagta acgttatatcg atgtc      55
97 <210> SEQ ID NO: 10
98 <211> LENGTH: 50
99 <212> TYPE: DNA
100 <213> ORGANISM: Artificial Sequence
101 <220> FEATURE:
102 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
103 <400> SEQUENCE: 10
104      acttaagctt atagcgatga ctgcccgtt tccagtcggg aaacctgtcg      50
106 <210> SEQ ID NO: 11
107 <211> LENGTH: 67

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108 <212> TYPE: DNA
109 <213> ORGANISM: Artificial Sequence
110 <220> FEATURE:
111 <223> OTHER INFORMATION: Description of Artificial Sequence: Bombyxin
112     secretion signal oligonucleotide fragment
113 <400> SEQUENCE: 11
114     aattatgaag atactccttg ctattgcatt aatgttgta acagtaatgt ggggtgtcaac 60
115     aagctta                                     67
117 <210> SEQ ID NO: 12
118 <211> LENGTH: 67
119 <212> TYPE: DNA
120 <213> ORGANISM: Artificial Sequence
121 <220> FEATURE:
122 <223> OTHER INFORMATION: Description of Artificial Sequence: Bombyxin
123     secretion signal oligonucleotide fragment
124 <400> SEQUENCE: 12
125     ctagtaagct tgttgacacc cacattactg ttgacaacat taatgcaata gcaaggagta 60
126     tcttcat                                     67
128 <210> SEQ ID NO: 13
129 <211> LENGTH: 66
130 <212> TYPE: DNA
131 <213> ORGANISM: Artificial Sequence
132 <220> FEATURE:
133 <223> OTHER INFORMATION: Description of Artificial Sequence: Enhancer
134     sequence OpE
135 <400> SEQUENCE: 13
136     cctttcaagc gcgtagcgac ccgaaaagca gggtagccgc tgacgcactg ctaaaaatag 60
137     cacgcg                                     66
139 <210> SEQ ID NO: 14
140 <211> LENGTH: 462
141 <212> TYPE: DNA
142 <213> ORGANISM: Artificial Sequence
143 <220> FEATURE:
144 <223> OTHER INFORMATION: Description of Artificial Sequence: Promoter
145     sequence of the OpMNPV ie2 gene
146 <400> SEQUENCE: 14
147     cccaccacc aacttttttg cactgcaaaa aaacacgctt ttgcacgcgg gccatacat 60
148     agtacaaact ctacgtttcg tagactatth tacataaata gtctacaccg ttgtatacgc 120
149     tccaaatata ctaccacaca ttgaaccttt ttgcagtga aaaaagtacg tgcggcagc 180
150     cagtaggccc ggccttatcg gtcgcgctcc tgtaacgtac gaatcacatt atcggaccgc 240
151     acgagtgttg tcttatcggt acaggacgcc agcttctgt gttgctaacc gcagccggac 300
152     gcaactcctt atcggaacag gacgcgcctc catatcagcc gcgcgttatc tcatgcgcgt 360
153     gaccggacac gaggcgcccg tccgccttat cgcgcctata aatacagccc gcaacgatct 420
154     ggtaaacaca gttgaacagc atctgttaca gcgacacaac at                                     462
156 <210> SEQ ID NO: 15
157 <211> LENGTH: 88
158 <212> TYPE: DNA
159 <213> ORGANISM: Artificial Sequence
160 <220> FEATURE:

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161 <223> OTHER INFORMATION: Description of Artificial Sequence: Fragment of
162     promoter sequence of the AcMNPV ien gene
163 <400> SEQUENCE: 15
164     gataaattta aaatgaattt ttttgcaatg caaaaaagtt cacttttgcc tgacactcca 60
165     tatacagtac aatctctaca aatcgtag                                     88
167 <210> SEQ ID NO: 16
168 <211> LENGTH: 92
169 <212> TYPE: DNA
170 <213> ORGANISM: Artificial Sequence
171 <220> FEATURE:
172 <223> OTHER INFORMATION: Description of Artificial Sequence: Fragment of
173     promoter sequence of the AcMNPV ien gene
174 <400> SEQUENCE: 16
175     ctatttttatt agaatagtct acactgtacg atacgctccc aatatactac tacactatca 60
176     acttttttgc attacaaaaa agttcathtt tg                                     92
178 <210> SEQ ID NO: 17
179 <211> LENGTH: 12
180 <212> TYPE: DNA
181 <213> ORGANISM: Artificial Sequence
182 <220> FEATURE:
183 <223> OTHER INFORMATION: Description of Artificial Sequence: Fragment of
184     the promoter sequence of the AcMNPV ien gene
185 <400> SEQUENCE: 17
186     cctggcaagt tc                                                         12
188 <210> SEQ ID NO: 18
189 <211> LENGTH: 17
190 <212> TYPE: DNA
191 <213> ORGANISM: Artificial Sequence
192 <220> FEATURE:
193 <223> OTHER INFORMATION: Description of Artificial Sequence: Fragment of
194     the promoter sequence of the AcMNPV ien gene
195 <400> SEQUENCE: 18
196     cccaccact attgtct                                                  17
198 <210> SEQ ID NO: 19
199 <211> LENGTH: 16
200 <212> TYPE: DNA
201 <213> ORGANISM: Artificial Sequence
202 <220> FEATURE:
203 <223> OTHER INFORMATION: Description of Artificial Sequence: Fragment of
204     the promoter sequence of the AcMNPV ien gene
205 <400> SEQUENCE: 19
206     tatcagtcgt gcagta                                                  16
208 <210> SEQ ID NO: 20
209 <211> LENGTH: 50
210 <212> TYPE: DNA
211 <213> ORGANISM: Artificial Sequence
212 <220> FEATURE:
213 <223> OTHER INFORMATION: Description of Artificial Sequence: Fragment of
214     the promoter sequence of the AcMNPV ien gene

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Input Set : N:\Crf3\RULE60\09896888A.RAW

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215 <400> SEQUENCE: 20
216     ctgataaaca gtataaatac agctgccgtt ctactcgtaa gcacagttca      50
218 <210> SEQ ID NO: 21
219 <211> LENGTH: 25
220 <212> TYPE: DNA
221 <213> ORGANISM: Artificial Sequence
222 <220> FEATURE:
223 <223> OTHER INFORMATION: Description of Artificial Sequence: Fragment of
224     the promoter sequence of the AcMNPV ien gene
225 <400> SEQUENCE: 21
226     agcctcacag cctagtgaac agtat      25
228 <210> SEQ ID NO: 22
229 <211> LENGTH: 10
230 <212> TYPE: DNA
231 <213> ORGANISM: Artificial Sequence
232 <220> FEATURE:
233 <223> OTHER INFORMATION: Description of Artificial Sequence: IE2B promoter
234     element
235 <400> SEQUENCE: 22
236     gacaggacgc      10
238 <210> SEQ ID NO: 23
239 <211> LENGTH: 18
240 <212> TYPE: DNA
241 <213> ORGANISM: Artificial Sequence
242 <220> FEATURE:
243 <223> OTHER INFORMATION: Description of Artificial Sequence: IE2B promoter
244     element
245 <400> SEQUENCE: 23
246     cttatcgtga caggacgc      18
248 <210> SEQ ID NO: 24
249 <211> LENGTH: 10
250 <212> TYPE: DNA
251 <213> ORGANISM: Artificial Sequence
252 <220> FEATURE:
253 <223> OTHER INFORMATION: Description of Artificial Sequence: IE2B promoter
254     element
255 <400> SEQUENCE: 24
256     aacaggaagc      10
258 <210> SEQ ID NO: 25
259 <211> LENGTH: 18
260 <212> TYPE: DNA
261 <213> ORGANISM: Artificial Sequence
262 <220> FEATURE:
263 <223> OTHER INFORMATION: Description of Artificial Sequence: IE2B promoter
264     element
265 <400> SEQUENCE: 25
266     cttatcggaa caggacgc      18
268 <210> SEQ ID NO: 26
269 <211> LENGTH: 132

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## VERIFICATION SUMMARY

DATE: 11/23/2001

PATENT APPLICATION: US/09/896,888A

TIME: 10:50:00

Input Set : N:\Crf3\RULE60\09896888A.RAW

Output Set: N:\CRF3\11232001\I896888A.raw

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L:293 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:  
L:323 M:258 W: Mandatory Feature missing, <220> FEATURE:  
L:323 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:  
L:351 M:258 W: Mandatory Feature missing, <220> FEATURE:  
L:351 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:  
L:379 M:258 W: Mandatory Feature missing, <220> FEATURE:  
L:379 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:  
L:407 M:258 W: Mandatory Feature missing, <220> FEATURE:  
L:407 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:  
L:432 M:258 W: Mandatory Feature missing, <220> FEATURE:  
L:432 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION:  
L:455 M:258 W: Mandatory Feature missing, <220> FEATURE:  
L:455 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION: